## **Home Invasions of the Insect Kind**



From left to right: Adult western conifer seed bug (Joseph Berger), adult brown marmorated stink bug (Susan Ellis), adult Asian multicolored lady beetle (Scott Bauer, USDA Agricultural Research Service) and the boxelder bug (Whitney Cranshaw, Colorado State University). Images from bugwood.org.

In recent weeks the University of Vermont (UVM) Extension Plant Diagnostic Clinic has received many calls, emails and samples regarding insects that have invaded homes. Most of these can be identified as one of four insects—western conifer seed bug, brown marmorated stink bug, Asian multicolored lady beetle and the boxelder bug.

They all typically search for protected sites, including homes, to overwinter and thus become annoyances in and around houses. However, none of these breed in the house or cause any damage to humans, pets, food items or structures.

The largest of the four is the western conifer seed bug, which feeds primarily on the seeds and developing cones of several species of conifers and their respective hybrids. These true bugs in the order Hemiptera have been expanding their range eastward, which today extends across the northern U.S. into Canada.

Adults are about 3/4-inch long, brownish in color with alternating light and dark bands running along the outer wing edges on the sides of their abdomen. The lower hind leg is widened on each side of the leg and looks like a tiny leaf has been attached. The insects move slowly but can fly and often make buzzing sounds when airborne. They will give off a pungent odor if handled.

Another home invader that can be confused with the western stink bug is the brown marmorated stink bug. This insect is shield-shaped and about 5/8-inch long with a mottled brownish grey color. The next to last (fourth) antennal segment has a white band. Several of the abdominal segments protrude from beneath the wings and are alternatively banded with black and white. The hind leg is cylindrical unlike the western conifer seed bug.

This insect was introduced to the U.S. from Asia in 1996 and has become a destructive fruit and vegetable pest in the Mid-Atlantic states' where some homes have been invaded by thousands of this nuisance pest. In Vermont, numbers have been low, and they have been noted only as home invaders as opposed to crop pests.

Two more colorful invaders are the Asian multicolored lady beetle and the boxelder bug. The Asian multicolored lady beetle was introduced by the U.S. Department of Agriculture as a biological control agent as an important predator of aphids and scale insects. Asian lady beetles, which are slightly larger than native lady beetles, are oval, yellow to red in color and can have no spots or up to 19.

These beetles become a nuisance on sunny south or southwest sides of houses in the fall and can inundate homes from September through April. It is not uncommon for thousands of beetles to congregate in attics, ceilings and wall voids, and due to the warmth of the walls, will move around inside these voids and exit into living areas. In addition to the small beetles sometimes biting, they exude a foul-smelling defensive chemical that will sometimes cause spotting on walls and other surfaces.

Adult boxelder bugs are flat-backed, about 1/2-inch long, 1/3-inch wide, and dark brownish-black with three lengthwise, red stripes on the thorax (area behind the head). Beginning around October, adults and large nymphs congregate in large numbers, primarily on the southwest side of the house (and on boxelder trees) and then begin migrating to a place conducive to overwintering.

The adults overwinter by hiding in cracks and crevices in walls, in door and window casings, around foundations and other protected places. Removing boxelder trees may decrease their numbers in the fall although they can fly up to two miles.

Mechanical exclusion is the best method of control to keep all these nuisance pests from entering homes. Seal cracks around windows, doors, siding, utility pipes, behind chimneys and underneath the wood fascia and other openings with good quality silicone or silicone-latex caulk. Repair or replace damaged screens on doors and windows. Cover attics, fireplace chimneys and exhaust vents with number 20 (or smaller) screen mesh.

Exterior applications of insecticides may offer some relief from infestations where the task of completely sealing the exterior is difficult or impossible, but this is usually not warranted. Use of a vacuum is still the most efficient method of collecting the insects once in the home. It is advisable to empty the bag and beetles after each vacuuming.

If questions, contact the UVM Extension Master Gardener Helpline at (802) 656-5421 (Chittenden County residents).

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